

Unit 1: Introduction to the Building Structure**B. Fill in the blanks**

- | | |
|-----------|--------------------|
| 1. floor | 2. wall |
| 3. plinth | 4. super-structure |

D. Multiple choice questions

- | | |
|------|------|
| 1. c | 2. a |
| 3. d | 4. d |
| 5. d | 6. d |

Unit 2: Building Material**Session 1: Stones****B. Fill in the blanks**

- | | |
|---------------------|---------------|
| 1. blocks | 2. stone |
| 3. high temperature | 4. weathering |
| 5. 2.4-2.8 | |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. d |
| 3. a | |

Session 2: Clay Products (Bricks, Tiles and Terracotta)**A. Fill in the blanks**

- | | |
|-----------|---------------|
| 1. 19,9,9 | 2. substitute |
| 3. cement | 4. pattern |
| 5. cover | 6. covering |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. b |
| 3. c | 4. b |
| 5. a | |

Session 3: Cement and Lime**A. Fill in the blanks**

- | | |
|----------------|--------------|
| 1. cement | 2. binding |
| 3. preparation | 4. resistant |
| 5. aggregate | |

C. Multiple choice questions

- | | |
|------|------|
| 1. d | 2. a |
| 3. b | |

Session 4: Ferrous and Non-ferrous Metals

NOTES

A. Fill in the blanks

- | | |
|------------------------------|-----------------|
| 1. ores, quarrying or mining | 2. purest |
| 3. contain | 4. wrought iron |
| 5. 1.5% | |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. d |
| 3. a | 4. a |

Session 5: Mortar and Concrete

A. Fill in the blanks

- | | |
|----------------|------------|
| 1. material | 2. binding |
| 3. fine | 4. sand |
| 5. Gara | 6. mixture |
| 7. used, sorts | |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. c |
| 3. d | 4. a |

Session 6: Building Finishing Material

A. Fill in the blanks

- | | |
|-----------------|------------------|
| 1. mortar | 2. wall papering |
| 3. mortar | 4. walls |
| 5. coal tarring | |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. d |
| 3. c | 4. d |

Session 7: Miscellaneous Materials

A. Fill in the blanks

- | | |
|----------------------|---------------------------------|
| 1. viscous | 2. 10-12 mm |
| 3. PVC, polyethylene | 4. weight, strength, resistance |
| 5. light | 6. hard, excess |
| 7. bad | 8. two, single |
| 9. electric | |

C. Multiple choice questions

- | | |
|------|------|
| 1. a | 2. c |
| 3. b | 4. a |

Unit 3: Units of Measurements used in Civil Works

A. Fill in the blanks with appropriate measurement units

- | | |
|--------------------|-------------------|
| 1. cu.m. | 2. cu.m. |
| 3. cu.m. | 4. sq.m. |
| 5. sq.m. | 6. running metres |
| 7. number of steps | |

B. Multiple choice questions

- | | |
|------|------|
| 1. d | 2. b |
| 3. d | 4. d |
| 5. d | 6. d |
| 7. a | |

Unit 4: Handling of Basic Masonry Tools

A. Fill in the blanks

- | | |
|-----------------|------------------|
| 1. lift, mortar | 2. verticality |
| 3. dress | 4. cut |
| 5. conveying | 6. horizontality |
| 7. right angle | |

Unit 6: Building Drawing

Session 1: Basic Geometric Constructions

A. Fill in the blanks

- | | |
|----------------------------|-------------------------|
| 1. drawing | 2. three straight sides |
| 3. unequal, unequal angles | 4. four straight |
| 5. four equal | 6. four straight |
| 7. seven | 8. ten |

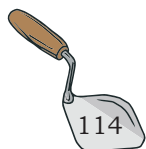
B. State whether the following statements are true or false

- | | |
|------|------|
| 1. T | 2. F |
| 3. T | 4. F |
| 5. T | 6. T |
| 7. F | 8. T |

Session 2: Tools of Engineering Drawing

A. Fill in the blanks

- | | |
|---------------------|---------------|
| 1. graphical | 2. look |
| 3. true zero | 4. light |
| 5. line | 6. Projection |
| 7. light | 8. path |
| 9. three axes, true | |



B. State whether the following statements are true or false

- | | |
|------|-------|
| 1. F | 2. T |
| 3. F | 4. F |
| 5. T | 6. T |
| 7. T | 8. T |
| 9. F | 10. F |

Session 3: Building and Building Drawing

A. Fill in the blanks

- | | |
|------------|---------------|
| 1. 594×841 | 2. straight |
| 3. angle | 4. at the top |

Unit 7: Foundation Works

Session 2: Construct Spread Footing Foundation

A. Fill in the blanks

- | | |
|---------------|-----------------------|
| 1. artificial | 2. preliminary |
| 3. bear | 4. carry and stronger |

NOTES

Acoustics: is the interdisciplinary science that deals with the study of all mechanical waves in gases, liquids, and solids including topics such as vibration, sound, ultrasound and infrasound.

Adhesion: is the ability of molecules/particles of a different substance to stick to each other.

Asbestos: is a naturally occurring mineral of the silica family and crystalline in structure. It is highly heat-resistant and can be woven into fabrics and is used in brake linings, fire-resistant and insulating materials.

BIS: the Bureau of Indian Standards (BIS) is the national Standards Body of India working under the aegis of Ministry of Consumer Affairs, Food and Public Distribution, Government of India. It is established by the Bureau of Indian Standards Act, 1986 which came into effect on 23 December 1986.

Bitumen: is a black or dark brown non-crystalline soil or viscous material having adhesive properties derived from petroleum crude either by natural or by refinery processes.

Building: is a man-made structure with a roof and walls standing more or less permanently in one place, such as a house or factory.

Buoyancy: is an upward force that fluids exerts on any object that is placed in them.

Ceramic: in general is any product made of natural clay, mixed in different proportions with water and sometimes organic materials, shaped, decorated, usually glazed, and hardened by heat.

Cohesion: is the ability of molecules/particles of a same substance to stick to each other.

Concrete: is the mixture of sand, cement, water, aggregates, in suitable proportion and with some admixtures added to the concrete to impart required characteristics.

Corrosion: is a phenomenon in which atmospheric oxygen in the air or water reacts with the metal to form oxides.

Corrugation: material shaped into a series of parallel ridges and grooves or like crest and trough of wave so as to give added rigidity and strength.

Course: laying of horizontal layer of brick or stone or concrete masonry units, etc., in a wall is known as course.

Curing: is wetting of concrete structure or concrete products as it helps in increasing the strength of the brick wall and durability of the concrete help in minimising the cracks and prevents shrinkage.

Dado: to make the walls smooth and prevent water absorption, Dado is applied for a height of three feet to seven feet especially in kitchens, toilets, hospitals, etc.

Durability: ability to resist elemental and natural forces of deterioration. This means how long material will survive with its intended or desired purpose.

Emulsion: is defined as the stable suspension of a hydrophobic substance in a Hydrophilic solvent with the aid of soap.

Forge: process that joins two pieces of metal by heating them to a high temperature and then hammering them together.

Foundation Settlement: is the movement of the foundation in downward direction due to the load of the entire structure over it, which thus displaces the soil below which results in the movement.

Foundation: is a sub-structure of building that transfers load of super-structure to the soil beneath.

Glaze: panels that are fixed into the aluminium or other types of frames which can be used as partition or curtain wall, doors and windows; glaze panels might be glass or other materials.

Guniting: a mixture of cement and sand with appropriate proportion which is used for repairing of concrete work which has been damaged due to bad workmanship or other environmental reasons.

Hard Strata: in engineering terms means soil layer, which has a

Levelling: is measurement of rise and fall of the surface of the earth.

Lining: is the support for remaining load of plaster which the wall could not support by itself.

Lintels: is a horizontal building component that lies across an opening and holds the weight of the structure above it. It is generally placed between two vertical supports.

Mortar: is a workable paste used to bind building blocks together. (Stones, bricks, and concrete masonry units). Mortar is a mixture of sand, a binder, such as cement or lime, and water.

Plinth: is normally the finished floor level of the ground floor. It is the level where you actually start seeing columns rising, from the floor, though columns penetrate up to footing. usually kept at 45° mm from existing ground level

Porcelain: ceramic products that have been baked at high temperatures to achieve vitreous, or glassy qualities such as translucence and low porosity.

Quarry: is a kind of open-pit mine from which rock or minerals are extracted.

Reinforcement: is used as reinforcement in concrete thus called reinforcement.

Shotcrete: is a mortar or concrete which is pneumatically projected or sprayed by a nozzle with high velocity on the prepared surface.

Sound insulation: is any material that impedes the transmission of sound waves.

Structure: is a series of connected, interrelated elements that form together a system that can resist a series of external load effects applied to it, which includes its own self weight, and provide adequate rigidity.

Sub-structure: structure constructed below ground level is termed as sub structure.

Super-structure: structure constructed above plinth level is termed as super structure.

Tar: is a substance derived from coal. It 's a thick liquid that holds high carbon content.

Thermal coefficient: is a value that determines how much material will expand or contract when the temperature increases or decreases.

IS : 12440 - 1988 Cr 4 *Indian Standard Specification for Precast Concrete Stone Masonry Blocks* (First Reprint March 1994) UDC 691'327-43 I

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